

**Product Name:** MPEP hydrochloride

**Catalog No.:** 1212

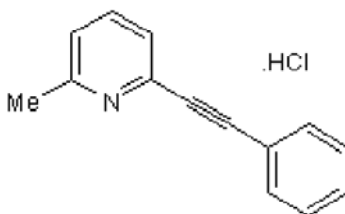
**Batch No.:** 10

CAS Number: 219911-35-0

IUPAC Name: 2-Methyl-6-(phenylethynyl)pyridine hydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>14</sub>H<sub>11</sub>N.HCl  
**Batch Molecular Weight:** 229.71  
**Physical Appearance:** White solid  
**Solubility:** water to 5 mM with gentle warming  
 ethanol to 100 mM  
 DMSO to 100 mM  
**Storage:** Desiccate at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.4 (Ether:Hexane [1:2])  
**Melting Point:** Between 149 - 151°C  
**HPLC:** Shows 99.9% purity  
<sup>1</sup>H NMR: Consistent with structure  
 Mass Spectrum: Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	73.2	5.27	6.1
Found	73.14	5.28	6.02

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Potent and highly selective non-competitive antagonist at the mGlu<sub>5</sub> receptor subtype (IC<sub>50</sub> = 36 nM) and a positive allosteric modulator at mGlu<sub>4</sub> receptors. Centrally active following systemic administration in vivo. Reverses mechanical hyperalgesia in the inflamed rat hind paw.

**Physical and Chemical Properties:**

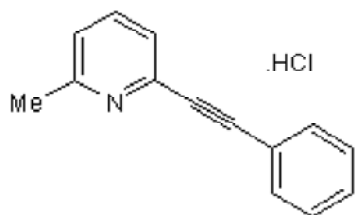
Batch Molecular Formula: C<sub>14</sub>H<sub>11</sub>N.HCl

Batch Molecular Weight: 229.71

Physical Appearance: White solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Desiccate at +4°C

**Solubility & Usage Info:**

water to 5 mM with gentle warming  
ethanol to 100 mM  
DMSO to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Mathiesen et al** (2003) Positive allosteric modulation of the human metabotropic glutamate receptor 4 (hmGluR4) by SIB-1893 and MPEP. Br.J.Pharmacol. **138** 1026. PMID: 12684257.

**Bowes et al** (1999) Anti-hyperalgesic effects of the novel metabotropic glutamate receptor 5 antagonist, methylphenylethynylpyridine, in rat models of inflammatory pain. Br.J.Pharmacol. **126** 250P.

**Gasparini et al** (1999) 2-Methyl-6-(phenylethynyl)-pyridine (MPEP), a potent, selective and systemically active mGlu5 receptor antagonist. Neuropharmacology **38** 1493. PMID: 10530811.

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